

REMARKS

Applicants have amended the specification on pages 3, 13 and 14, to recite a polyfunctional acrylate "resin" or a polyfunctional methacrylate "resin", within the group of thermosetting heat-resistant resins. In view of these amendments to the specification, it is respectfully submitted that the objection to the disclosure in Item 2 on page 2 of the Office Action mailed August 9, 2002, is moot.

Applicants have canceled non-elected claims 15-18 without prejudice or disclaimer, and, in particular, without prejudice to the filing of a Divisional application directed to the subject matter thereof.

Applicants have amended the claims remaining in the application in order to further clarify the definition of the present invention. Specifically, Applicants have amended claims 4 and 5, respectively, to recite that the composition includes at least one thermosetting resin which does not react with a polyvinyl acetal resin and which is compatible with the polyvinyl acetal resin, and includes at least one thermosetting resin which does not have an aromatic ring. Applicants have amended claim 13 to change "or" to --and--, in line 3. And Applicants have amended claim 19 to recite that the at least one of a polyfunctional acrylate compound and a polyfunctional methacrylate compound has two or more acryloyl groups or methacryloyl groups.

Applicants note with thanks the indication in Item 5 on page 3 of the Office Action mailed May 29, 2002, that claims 1, 3, 7-11, 20 and 21 are deemed allowable over the prior art of record.

Moreover, Applicants note comments by the Examiner in Item 6 on page 3 of the Office Action mailed May 29, 2002. Applicants clarify for the record that the discussion in the paragraph bridging pages 17 and 18, and first full paragraph on page 18, of the Amendment filed March 25, 2002, is with respect to U.S. Patent No. 6,165,617 to **Satoh et al.**; the misspelling of the name of the patentee, **Satoh et al.**, on page 18 of the Amendment filed March 25, 2002, in the above-identified application, is regretted.

In view of the present amendments to claims 4, 5, 13 and 19, it is respectfully submitted that the bases for rejection of claims under the second paragraph of 35 U.S.C. § 112 is now moot. That is, claim 13 has been amended to read "at least one of an antioxidant, a metal scavenger and a lubricant", clearly overcoming any basis for rejection of claim 13 under the second paragraph of 35 U.S.C. § 112. Moreover, claim 19 has been amended to recite that the at least one of the recited compounds has two or more of specified groups; as presently amended, it is respectfully submitted that claim 19 does not "engender superfluous subject matter", and sufficiently defines metes and bounds of the present invention so as to satisfy requirements of the second paragraph of 35 U.S.C. § 112.

Furthermore, each of claims 4 and 5 has been amended to recite that the composition includes at least one thermosetting resin having specified characteristics. It is respectfully submitted that this language in claims 4 and 5 is sufficiently definite to satisfy the requirements of the second paragraph of 35 U.S.C. § 112, even in light of recitations in parent claim 3. In this regard, the contention by the Examiner in Item 4(A) on page 2 of the Office Action mailed May 29, 2002, that

the recitations in claims 4 and 5 are indefinite in that it is not readily ascertainable as to how said "thermosetting resins" further limit the antecedently recited "thermosetting resin", is noted. It must be emphasized, however, that claim 3 recites "a" thermosetting resin, while each of claims 4 and 5 now recite that the composition includes "at least one thermosetting resin" having specified properties. In view of the specific recitations in claims 3, 4 and 5, it is respectfully submitted that these claims are not inconsistent with each other, and that one of ordinary skill in the art would know whether any specific adhesive composition for a metal foil, containing a thermosetting resin, fell within claim 3, for example, or only fell within claims 4 and 5. In view thereof, it is respectfully submitted that claims 4 and 5 are not indefinite under the requirements of the second paragraph of 35 U.S.C. § 112.

As can be seen in the foregoing, Applicants have amended their claims for overcoming bases for rejection of these claims under the second paragraph of 35 U.S.C. § 112. If the Examiner considers that any issues remain under the requirements of 35 U.S.C. § 112, second paragraph, the Examiner is respectfully requested to contact the undersigned so as to conduct an interview for working out appropriate language for overcoming any remaining issues under the second paragraph of 35 U.S.C. § 112. The Examiner is thanked in advance for cooperating with this request, if necessary.

In view of the foregoing comments and amendments to the claims, reconsideration and allowance of all claims remaining in the application are respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current Amendment. The changes are shown in the attached pages, the first page of which is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE".

To the extent necessary, Applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Deposit Account No. 01-2135 (Case No. 511.37656X00) and please credit any excess fees to such Deposit Account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

A handwritten signature in black ink, appearing to read "William I. Solomon", with a long horizontal flourish extending to the right.

William I. Solomon
Registration No. 28,565

1300 North 17th Street
Suite 1800
Arlington, VA 22209
Tel: 703-312-6600
Fax : 703-312-6666

WIS/lms

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

The paragraph on page 3, line 30, has been amended as follows:

The present invention further relates to an adhesive composition for a metal foil which comprises thermosetting heat resistant resins at least one of which is at least one of a polyfunctional acrylate resin ~~compound~~ or a polyfunctional methacrylate resin ~~compound~~ having two or more acryloyl groups or methacryloyl groups in the molecule.

The paragraph on page 13, line 29, has been amended as follows:

In the present invention, it is preferred that at least one of the thermosetting heat-resistance resins is at least one of a polyfunctional acrylate resin ~~compound~~ or a polyfunctional methacrylate resin ~~compound~~ having at least 2 of an acryloyl group or a methacryloyl group in the molecule.

The paragraph on page 14, line 6, has been amended as follows:

The formulation ratio of the main components of the adhesive composition for a metal foil according to the present invention is preferably, based on 100 parts by weight of a polyvinyl acetal resin, 20 to 500 parts by weight of a polyfunctional acrylate resin ~~compound~~ or a polyfunctional methacrylate resin ~~compound~~, and 5 to 100 parts by weight of an epoxy resin. If the formulation amount of the

polyfunctional acrylate resin compound or the polyfunctional methacrylate resin compound is less than 20 parts by weight, curing of the resin tends to be insufficient whereby the heat resistance of the cured product tends to be low. If it exceeds 500 parts by weight, peeling strength of the metal foil tends to be lowered. If an amount of the epoxy resin is less than 5 parts by weight, metal peeling strength is lowered while if it exceeds 100 parts by weight, the resin after curing tends to become brittle. The amount of the epoxy resin is preferably within the range of 10 to 80 parts by weight.

The paragraph on page 14, line 31, has been amended as follows:

The thermosetting resin other than the epoxy resin is preferably used in an amount of 20% by weight or less based on the total amount of the thermosetting resin such as the polyvinyl acetal resin, epoxy resin, etc. and the polyfunctional (meth)acrylate resin compound, and the melamine resin is preferably used in an amount of 3 to 20 % by weight based on the same to avoid tackiness of the composition.

In the claims:

Claims 15-18 have been canceled without prejudice or disclaimer.

Claims 4, 5, 13 and 19 have been amended as follows:

4. **(Twice Amended)** The adhesive composition for a metal foil according to Claim 3, wherein said composition comprises ~~thermosetting resins~~ at least one of thermosetting resin which does not react with a polyvinyl acetal resin and which is compatible with the polyvinyl acetal resin.

5. **(Amended)** The adhesive composition for a metal foil according to Claim 4, wherein said composition comprises ~~thermosetting resins~~ at least one of thermosetting resin which does not have an aromatic ring.

13. **(Twice Amended)** The adhesive composition for a metal foil according to any one of Claims 1 and 3-11, wherein said composition further comprises at least one of an antioxidant, a metal scavenger ~~or~~ and a lubricant.

19. **(Amended)** The adhesive composition for a metal foil according to Claim 1 or 3, wherein ~~each of~~ the at least one of a polyfunctional acrylate compound and a polyfunctional methacrylate compound has two or more acryloyl groups or methacryloyl groups.